

Notice of Allowability

Application No.

10/040,128

Examiner

Stephen L. Rawlings, Ph.D.

Applicant(s)

LIAO ET AL.

Art Unit

1643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 17 October 2007.
2. ☒ The allowed claim(s) is/are 1-5 and 7-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 20070730
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20071220
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

/Stephen L. Rawlings/
Stephen L. Rawlings, Ph.D.
Primary Examiner, Art Unit 1643

**UNITED STATES DEPARTMENT OF COMMERCE****U.S. Patent and Trademark Office**

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P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10040128	1/2/02	LIAO ET AL.	1017.33067.US2

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EXAMINER

Stephen L. Rawlings, Ph.D.

ART UNIT	PAPER
1643	20071220

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Michael Mercanti and Paul Diamond on December 21, 2007.
3. The application has been amended as follows:

In the claims:

The following set of claims has replaced the prior set of claims:

Claim 1. (Currently Amended) An isolated monoclonal antibody or an isolated ~~antibody~~ fragment thereof capable of specifically binding to a site on a mouse or human VE-cadherin, said site being within the about first 15 N- terminal amino acids of domain 1 of the VE-cadherin, wherein said antibody or ~~said antibody~~ fragment thereof is capable of inhibiting VE- cadherin mediated adherens junction formation in vitro but does not exert any significant or substantial effect on paracellular permeability in vitro.

Claim 2. (Currently Amended) The monoclonal antibody or ~~antibody~~ fragment thereof of Claim 1, wherein said monoclonal antibody or ~~said antibody~~ fragment thereof does not exert any significant or substantial effect on vascular permeability in vitro

Claim 3. (Currently Amended) The monoclonal antibody or antibody fragment thereof of Claim 1, wherein said monoclonal antibody or ~~said antibody~~ fragment thereof is substantially non-toxic when administered to an animal or mammal.

Claim 4. (Currently Amended) The monoclonal antibody or antibody fragment thereof of Claim 1, wherein said monoclonal antibody or ~~said antibody~~ fragment thereof inhibits angiogenesis in vivo or in vitro or inhibits minor metastasis.

Claim 5. (Currently Amended) The monoclonal antibody or antibody fragment thereof of claim 1, wherein said monoclonal antibody or ~~said antibody~~ fragment thereof inhibits formation of new adherens junctions without disturbing existing adherens junctions.

Claim 6. (Cancelled)

Claim 7. (Currently Amended) The monoclonal antibody or antibody fragment thereof of Claim 1, wherein said monoclonal antibody is murine monoclonal antibody E4B9 of ~~[[()]]~~ATCC accession number PTA-1618~~[[()]]~~.

Claim 8. (Currently Amended) A hybridoma which produces the monoclonal antibody of Claim ~~[[6]]~~ 1.

Claim 9. (Currently Amended) A hybridoma ATCC of Accession No. PTA-1618 which produces the monoclonal antibody of claim 7.

Claim 10. (Currently Amended) The monoclonal antibody or antibody fragment thereof of Claim 1, wherein said monoclonal antibody or ~~said antibody~~

fragment thereof is a single chain antibody, is humanized, is chimerized or is bispecific.

Claim 11. (Currently Amended) The monoclonal antibody or ~~antibody~~ fragment thereof of Claim 1, wherein said monoclonal antibody or ~~said antibody~~ fragment thereof is fused to a heterologous polypeptide.

Claim 12. (Currently Amended) A pharmaceutical composition comprising the monoclonal antibody or ~~antibody~~ fragment thereof of any one of Claims 1-~~[[7]]~~5, 7, and 10-11 and a pharmaceutically acceptable carrier or diluent.

Claims 13-22. (Cancelled)

Examiner's Statement of Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The prior art does not teach or suggests a *monoclonal* antibody or fragment thereof that binds to mouse or human VE-cadherin, recognizing an antigenic determinant present in the about first 15 N-terminal amino acids of domain 1 of these proteins. Though the prior art teaches polyclonal sera that would be expected to comprise a species of antibody capable of binding to this site within the proteins, the prior art fails to teach or suggest motivation to select that particular species from among the other species of antibody of which the sera is also comprised, which lack the required binding specificity. See *In re Baird*, 29 USPQ2d 1550 (CA FC 1994).

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Claims 1-5 and 7-12 have been allowed.
7. Claims 7-12 have been renumbered as claims 6-11, respectively.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen L. Rawlings, Ph.D. whose telephone number is (571) 272-0836. The examiner can normally be reached on Monday-Friday, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms, Ph.D. can be reached on (571) 272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen L. Rawlings/
Stephen L. Rawlings, Ph.D.
Primary Examiner
Art Unit 1643